



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|---------------------------------|---------------------|------------------|
| 10/616,775 | 07/10/2003 | Andrea Zanardi | | 1986 |
| 7590 08/14/2006 | | | | |
| Walter H. Schneider 21530 BEECHWOOD RD. CIRCLEVILLE, OH 43113 | | | | |
| | | EXAMINER DELCOTTO, GREGORY R | | |
| | | ART UNIT PAPER NUMBER | | |
| | | 1751 | | |

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---|---------------------------------------|--|
| Office Action Summary | Application No. 10/616,775 | Applicant(s) ZANARDI ET AL. | |
| | Examiner Gregory R. Del Cotto | Art Unit 1751 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2006.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6,9,17 and 18 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 6,9,17 and 18 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1751

DETAILED ACTION

1. Claims 6, 9, 17, and 18 are pending. Claims 1-5, 7, 8, and 10-16 have been canceled. Applicant's arguments and amendments filed 7/22/06 have been entered.

Objections/Rejections Withdrawn

The following objections/rejections as set forth in the Office action mailed 5/3/06 have been withdrawn:

The rejection of claims 3, 4, 9, 17, and 18 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over EP 315,204 has been withdrawn.

The rejection of claims 3, 4, 6, 9, 17, and 18 under 35 U.S.C. 103(a) as being unpatentable over Ambuter et al (US 6,083,422) in view of EP 315,204 has been withdrawn.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

Art Unit: 1751

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9, 17, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by WO97/45523.

'523 teaches a method for cleaning apparatus used during the production of foodstuffs, in particular the filtration thereof, wherein this apparatus is contacted after use with a cleaning system based on the combination of a cyclic nitroxyl compound and hypohalite. See Abstract. Suitable nitroxyl compounds include 4-hydroxy-2,2,6,6-tetramethylpiperidine-N-oxyl which is the same as the hindered amine as recited by the instant claims. See page 3, lines 30-35. In combination with a hypohalite, it is possible to obtain a rapid removal of the contaminations by using catalytic amounts of the nitroxyl compound. See page 3, lines 19-26.

The concentration of the cyclic nitroxyl compound preferably ranges between 1 and 150 mg/l, more in particular between 2 and 25 mg/l. Such concentrations of nitroxyl compound can be properly combined with hypohalite concentrations of at least 0.5 g/l, preferably 0.75 to 10 g/l. See page 4, lines 5-20. The hypohalite may be a combination

Art Unit: 1751

of hypochlorite and an alkali bromide. See claim 7. Note that, with respect to the process limitation as recited by instant claim 18 which is simply "stabilizing the viscosity and/or active chlorine content of liquid compositions by adding a hindered amine to the composition", the Examiner asserts that, the composition as taught by '523 would inherently stabilize the active chlorine content of the cleaning composition because '523 teaches adding the same hindered amine compound to a liquid composition containing hypochlorite in the same amounts as recited by the instant claims. '523 discloses the claimed invention with sufficient specificity to constitute anticipation.

Accordingly, the teachings of '523 anticipate the material limitations of the instant claims.

Claims 9, 17, and 18 are rejected under 35 U.S.C. 102(e) as anticipated by Jewell et al (US 6,524,348).

Jewell et al teach a method of making carboxylated cellulose fibers whose fiber strength and degree of polymerization is not significantly sacrificed. The method involves the use of cyclic nitroxide free radical compounds as a primary oxidant and a hypohalite salt as a secondary oxidant in an aqueous environment. See Abstract. The amount of nitroxide required is in the range of about 0.005 to 1% based on cellulose present. The nitroxide may first be premixed with a portion of an aqueous hypohalite to form a homogeneous solution before addition to the cellulose fiber slurry. A preferred hypohalite is sodium hypochlorite. Sodium hypochlorite is inexpensive and readily available as a stable aqueous solution with about 4 to 10% NaOCL w/v. See column 5, lines 25-69. The usage of NaOCl may be in the range of about of about 6.5 g/l of pulp

Art Unit: 1751

slurry. Usage of NaOCl based on cellulose will be within the range of about 0.5 to 35% by weight, preferably about 1.3 to 10.5% by weight. Suitable nitroxide compounds include 4-hydroxy-2,2,6,6-tetra-methylpiperidine-N-oxyl which is the same as the hindered amine as recited by the instant claims. See column 9, lines 1-45.

Specifically, Jewell et al teach an oxidizing solution containing 100 mg of nitroxide compound, 1 g NaBr, and about 2 ml of a 5.25% solution of NaOCL. Note that, with respect to the process limitation as recited by instant claim 1 which is simply "stabilizing the viscosity and/or active chlorine content of liquid compositions by adding a hindered amine to the composition", the Examiner asserts that, the composition as taught by Jewell et al would inherently stabilize the active chlorine content of the cleaning composition because Jewell et al teach adding the same hindered amine compound to a liquid composition containing hypochlorite in the same amounts as recited by the instant claims. Jewell et al disclose the claimed invention with sufficient specificity to constitute anticipation.

Accordingly, the teachings of Jewell et al anticipate the material limitations of the instant claims.

Claims 6, 9, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ambuter et al (US 6,083,422) in view of WO 97/45523.

Ambuter et al teach thickened aqueous bleach compositions containing either an alkali metal hypohalite or peroxygen bleach. Compositions containing hypohalite or peroxygen bleaches are particularly difficult to thicken with sufficient stability for commercial value. The addition of a rheology stabilizer minimizes the loss of stability

Art Unit: 1751

over time and enable compositions of varying bleach and pH level to be obtained. See Abstract. The rheology modifier is used in amounts from about 0.01 to 10% by weight and includes a polymer which can be a non-associative thickener or stabilizer such as a homopolymer or a copolymer of an olefinically unsaturated carboxylic acid or anhydride monomer. See column 6, lines 10-65. Note that, the Examiner asserts that it would have been obvious to one of ordinary skill in the art to use a combination of peroxygen bleach and chlorine bleach in the composition taught by Ambuter et al, with a reasonable expectation of success because Ambuter et al teach the equivalence of peroxygen bleaches to chlorine bleaches as bleaching agents. See MPEP 2144.06 and *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Ambuter et al do not teach the use of a hindered amine or a composition containing an alkali metal hypochlorite, hindered amine, polymer thickening agent, and the other requisite components of the composition in the specific amounts as recited by the instant claims.

'523 is relied upon as set forth above.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to use a hindered amine in the composition taught by Ambuter et al, with a reasonable expectation of success, because '523 teaches that the use of such compounds in a similar bleaching composition acts as a catalyst for a hypochlorite compound and further, Ambuter et al teach the use of alkali metal hypochlorite compounds for bleaching in general. Note that, the Examiner asserts that, the composition suggested by Ambuter et al in combination with '523 would have the

Art Unit: 1751

stabilized active chlorine content as recited by the instant claims because the teachings of Ambuter et al in combination with '523 teach forming a composition containing the same components in the same proportions as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a composition containing an alkali metal hypochlorite, hindered amine, polymer thickening agent, and the other requisite components of the composition in the specific amounts as recited by the instant claims, with a reasonable expectation of success, because the broad teachings of Ambuter et al in combination with '523 suggest a composition containing an alkali metal hypochlorite, hindered amine, polymer thickening agent, and the other requisite components of the composition in the specific amounts as recited by the instant claims.

Claims 17 and 18 are rejected under 35 U.S.C. 102(b) as anticipated by WO 99/15256.

'256 teaches that filters for water purification can be cleaned by treatment with a calcium-binding agent, preferably followed by catalytic oxidation, for example with hypochlorite in the presence of a nitroxyl agent. See Abstract. Suitable nitroxyl agents include 4-hydroxy-2,2,6,6-tetra-methylpiperidine-N-oxyl which is the same as the hindered amine as recited by the instant claims. See page 2, lines 1-15. The nitroxyl compound may be used in amounts from 0.1 to 5% by weight. See page 2, lines 20-25.

Note that, with respect to the process limitation as recited by instant claim 1 which is simply "stabilizing the viscosity and/or active chlorine content of liquid compositions by adding a hindered amine to the composition", the Examiner asserts

Art Unit: 1751

that, the composition as taught by '256 would inherently stabilize the active chlorine content of the cleaning composition because '256 teaches adding the same hindered amine compound to a liquid composition containing hypochlorite in the same amounts as recited by the instant claims. '256 discloses the claimed invention with sufficient specificity to constitute anticipation.

Accordingly, the teachings of '256 anticipate the material limitations of the instant claims.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO99/15256.

'256 is relied upon as set forth above. However, '256 does not teach, with sufficient specificity, a composition containing the specific amount of hindered amine as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a composition containing the specific amount of hindered amine as recited by the instant claims, with a reasonable expectation of success, because the broad teachings of '256 suggest a composition containing the specific amount of hindered amine as recited by the instant claims.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Remaining references cited but not relied upon are considered to be cumulative to or less pertinent than those relied upon or discussed above.


Art Unit: 1751

Applicant is reminded that any evidence to be presented in accordance with 37 CFR 1.131 or 1.132 should be submitted before final rejection in order to be considered timely.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory R. Del Cotto whose telephone number is (571) 272-1312. The examiner can normally be reached on Mon. thru Fri. from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gregory R. Del Cotto
Primary Examiner
Art Unit 1751

GRD
August 9, 2006